

WHAT IS CLAIMED IS:

1. A coordinate detecting method for a touch panel, comprising the steps of:

5 (a) converting a plurality of X-axis I/O ports and a plurality of Y-axis I/O ports respectively to form a plurality of X-axis scanning wires and a plurality of Y-axis scanning wires of the touch panel by an orthogonal method;

(b) transmitting polling signals to the X-axis I/O ports in sequence, which are then transmitted to the X-axis scanning wires;

10 (c) storing a plurality of X-axis detection signals from a sensor touching the touch panel according to the polling signals;

(d) determining a largest X-axis detection signal and a second largest X-axis detection signal, then determining an X coordinate position of the sensor on the touch panel;

15 (e) transmitting polling signals to the Y-axis I/O ports in sequence, which are then transmitted to the Y-axis scanning wires;

(f) storing a plurality of Y-axis detection signals from the sensor touching the touch panel according to the polling signals; and

20 (g) determining a largest Y-axis detection signal and a second largest Y-axis detection signal, then determining a Y coordinate position of the sensor on the touch panel.

2. The coordinate detecting method according to Claim 1, wherein the number of X-axis I/O ports or the number of Y-axis I/O ports is an odd number N, and the maximum number of the X-axis scanning wires or the maximum number of the Y-axis scanning wires is $C(N,2)+1$.

3. The coordinate detecting method according to Claim 1,

wherein the number of X-axis I/O ports or the number of Y-axis I/O ports is an even number N , and the maximum number of the X-axis scanning wires or the maximum number of the Y-axis scanning wires is $C(N,2) - N/2 + 2$.

5 4. A coordinate detecting system for a touch panel comprising:

 a converting means for converting a plurality of X-axis I/O ports and a plurality of Y-axis I/O ports respectively to form a plurality of X-axis scanning wires and a plurality of Y-axis scanning wires of the touch panel by orthogonal method;

10 a control means for transmitting polling signals to the X-axis I/O ports and the Y-axis I/O ports in order, the X-axis scanning wires and the Y-axis scanning wires having the responding polling signals;

 a sensor for detecting a plurality of X-axis detection signals and a plurality of Y-axis detection signals according to the polling signals;

15 a database for storing the X-axis detection signals and the Y-axis detection signals from the sensor; and

 an arithmetic means for determining a largest X-axis detection signal, a second largest X-axis detection signal, and determining a largest Y-axis detection signal and a second largest value Y-axis detection signal, then
20 determining an X coordinate position and a Y coordinate position of the sensor on the touch panel.

 5. The coordinate detecting system according to Claim 4, wherein the number of X-axis I/O ports or the number of Y-axis I/O ports is an odd number N , and the maximum number of the X-axis scanning
25 wires or the maximum number of the Y-axis scanning wires is $C(N,2) + 1$.

 6. The coordinate detecting system according to Claim 4, wherein the number of X-axis I/O ports or the number of Y-axis I/O ports

is an even number N , and the maximum number of the X-axis scanning wires or the maximum number of the Y-axis scanning wires is $C(N,2)-N/2+2$.

5 7. The coordinate detecting system according to Claim 4, wherein the sensor comprises an antenna and a demodulation circuit, the antenna being used to detect the X-axis detection signals and the Y-axis detection signals, and the demodulation circuit being used to demodulate the X-axis detection signals and the Y-axis detection signals, and to
10 transmit the X-axis detection signals and the Y-axis detection signals to the database.

8. The coordinate detecting system according to Claim 7, wherein the sensor further comprises a shielding housing for covering the demodulation circuit to isolate the external noise.